

LTH*PRO
professional equipment



LTH PROfessional - Diffusion 200

Manual | Diffusion 200

Features

- Asymmetric Diffuser with led COB
- Variable color temperature settings (3.000k - 7.000k)
- Aluminium/steel case
- Asymmetric reflector with a perfect color Mixing
- Positioning on floor or from the top

Source:

- White Led COB
- 50.000 hour Average life

Specications:

- Color temperature setting
- Preset Whites
- Electronic Smooth Dimmer
- 16 bit resolution
- Setting dimmer curve (halogen lamp/discharge lamp)
- Strobe effect, synchronized, random and adjustable speed
Flicher-free from 600 to 5.000 Hz

Controlling:

- USITT DMX 512
- 2 DMX Channels Modes: 1 / 5
- Display menu for setting
- RDM
- Master/slave

Electrical Specifications:

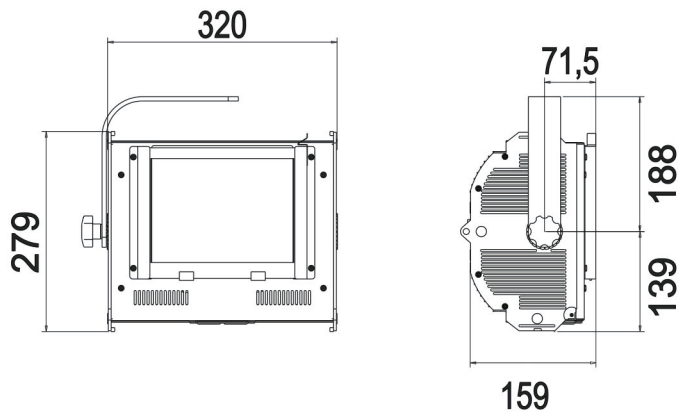
- AC 90-240V 50-60 Hz
- 200W Max power Consumption
- In-out powercon connectors (max 14 Colours Diffusion)
- 5 pin in-out Neutrik dmx connectors
- Protection class: IP20

Size / Weight:




- Length: 175 mm
- Width: 320 mm
- Height: 279 mm
- Weight: 5,5 kg

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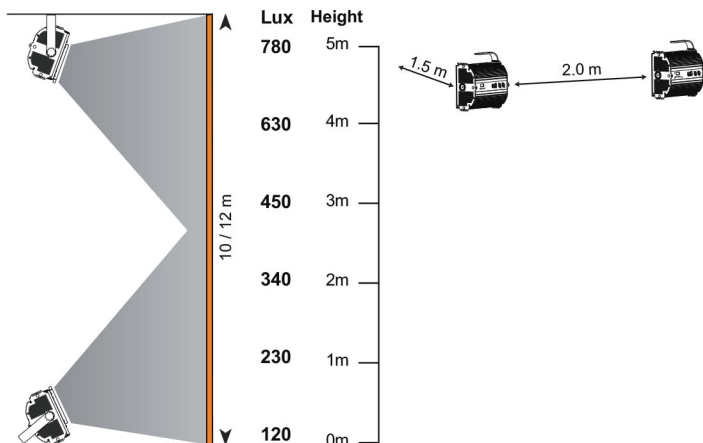
DIMENSION



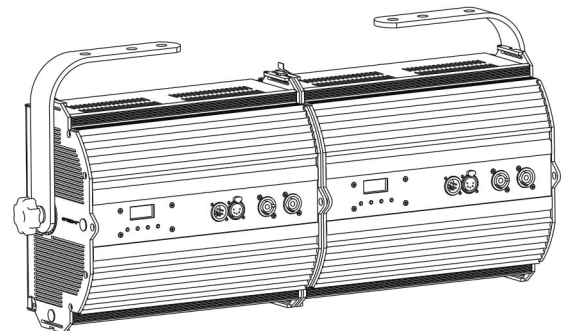
MODULAR

-  INCLUDED
CDDF (Filter frame)
-  CDBARN (Barndoor)
-  INCLUDED
CDDP (Frontal glass)

PHOTOMETRICAL



MODULAR



MODULAR MAX 3 DIFFUSION

English

Congratulations on purchasing a product Colours LED You are assured of a fixture of the highest quality components and technology. We renew our invitation to all in, if you have not already done so, the board at the beginning of this manual that will enable a rapid and effective intervention by the service center Colours LED to which you can turn with confidence for any request information or services. Following the instructions and procedures outlined in this manual will ensure the maximum efficiency of this product for years.

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1. Packaging

Open the packaging and ensure that no part of the equipment has been damaged during transport. In case of damage to the product, please contact the shipping company immediately and by telephone, fax or e-mail, with formal notification in a letter.

Electrical

2.CONSTRUCTION FEATURES

- Power supply: 90-240V AC 50-60 Hz
- Power consumption: 200W

Voltage and frequency.

The projector can be operated with voltages from 90 to 240VAC and a frequency of 50 and 60 Hz. You do not need any type of setting: Colours Diffusion is automatically set according to the voltage and power frequency detected.

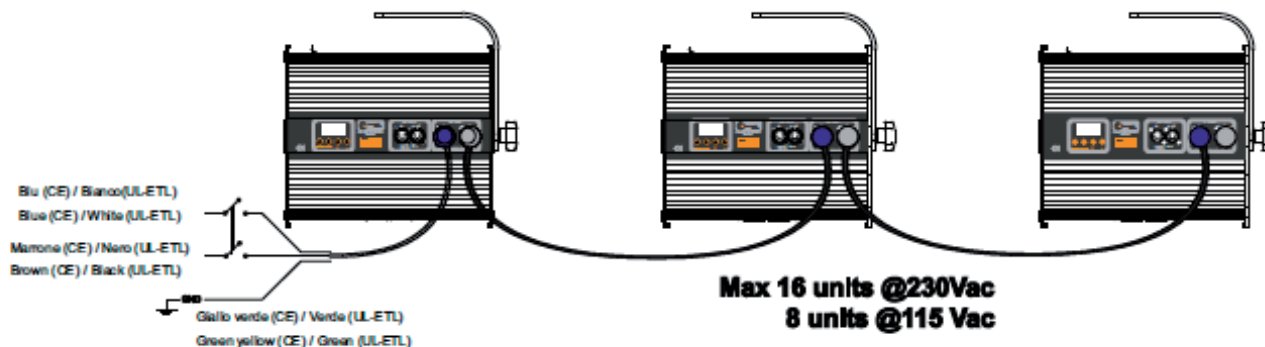
Features of the power cord

The cable supplied conforms to the latest safety regulations. NB: when replacing the cable used exclusively similar cable with comparable thermal resistant (cable 3X 1.5mm)

Grid connection

Colours Diffusion is provided with two power connectors, one input and one output (through which it is possible to connect more fixtures in series no more than 16 230V devices)

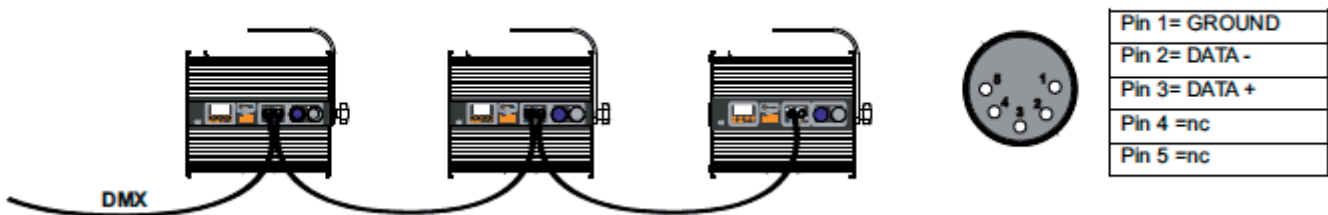
The following figure shows an example of series connection:



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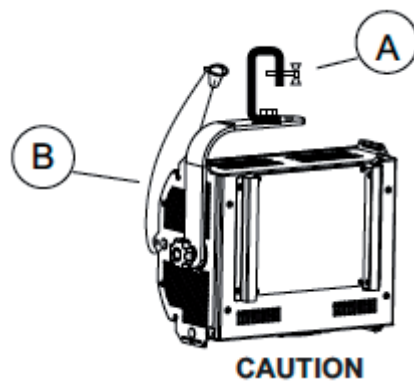
3.Connection DMX 512

Signal connection Plug / socket XLR5. The signal is digital and is transmitted to the projector with a two pole cable screened as the international standard for the transmission of DMX512. Connection is serial, utilizing connectors XL5 male and female located on the Colours of Diffusion and labeled DMX512 IN and OUT (see figure).



4.Fitting and safety hook

If hanging the fixture from a lighting truss, we recommend the use of appropriate clamps „A“.
In case Colours Diffusion is afixed to a structure, we recommend the use of a safety chain, as prescribed by the law. The safety chain must pass through the handle of the unit and then attached to the structure „B“



Always ensure that the structure and materials of fasteners (screws, hooks, etc ...)are suitable to support its weight.

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5.Orientation of Projector

To tilt the projector by loosening the handwheel side, place the projector as required and retighten the knob to lock the position.

6.Turn on the Projector

Turn it on the projector by connecting it to the power supply, the display will light up and display the version of software installed on the internal microprocessors. If the address continues to blink, indicating that there is no DMX signal. Check the cable connection and operation of the mixer.

7.DMX address of the Projector

Each projector uses 1/4/8 / 012 address channels for its complete operation and is controlled by DMX512 signal

8.Encoding DMX

The projector will show on the display A001 which indicates DMX address 001; a projector thus addressed will respond to commands on channels 1 and 12 DMX 512 controller. A second unit should be addressed as A013, a third as A025 and so on. The operation must be performed on each Colours Diffusion which has an address different from A001.

Altering DMX.

1. Press the + or - until the desired DMX address, the digits of the display will flash to indicate the change has not been recorded.
2. Press the enter button to confirm your selection; the display panel will stop flashing, the projector will now respond to the new address.

NB: holding down the + or - channel count is performed at a higher speed for faster selection.

WARNING! If you alter the DMX with no DMX controller connected, the characters of the panel will continue to flash even after the confirmation of the address by pressing ENTER.

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channel	function	type of control	effect	decimal			percentage		
1	master dimmer	proportional	adjust luminous output intensity from 0 to 100%	0	-	255	0%	-	100%
2	white tone	step	select the primary WHITE color	0	-	9	0%	-	4%
			WHITE 7000 °K	10	-	21	4%	-	8%
			WHITE 6500 °K	22	-	33	9%	-	13%
			WHITE 6000 °K	34	-	45	13%	-	18%
			WHITE 5500 °K	46	-	57	18%	-	22%
			WHITE 5000 °K	58	-	69	23%	-	27%
			WHITE 4500 °K	70	-	81	27%	-	32%
			WHITE 4000 °K	82	-	93	32%	-	36%
			WHITE 3500 °K	94	-	105	37%	-	41%
			WHITE 3200 °K	106	-	117	42%	-	46%
		WHITE 3000 °K	118	-	128	46%	-	50%	
		proportional	adjust proportionally white color temperature from 3000°K to 7000°K	129	-	255	51%	-	100%
3	dimmer fine	step	no effect	0	-	9	0%	-	4%
		proportional	fine dimmer control 16 bit	10	-	255	4%	-	100%
4	strobe	step	no effect		-			-	
		proportional	variable speed strobing effect, from slow to fast		-			-	
		step	stop strobe		-			-	
		proportional	sequenced pulse effect, slow closing, fast opening (variable speed pulsing, from slow to fast)		-			-	
		step	stop strobe		-			-	
		proportional	sequenced pulse effect, fast closing, slow opening (variable speed pulsing, from slow to fast)		-			-	
		step	stop strobe		-			-	
		proportional	random strobe effect with variable speed from slow to fast and synchronised colour temperature selected		-			-	
		step	stop strobe		-			-	
		proportional	random strobe effect with variable speed from slow to fast and non-synchronised colour temperature		-			-	

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5	special functions	step	600 Hz	0	-	9	0%	-	4%
			park	10	-	133	4%	-	52%
			LCD display off	134	-	185	53%	-	73%
			LCD display on	186	-	199	73%	-	78%
			led control frequency tuning 1000 Hz	200	-	205	78%	-	80%
			led control frequency tuning 1500 Hz	206	-	211	81%	-	83%
			led control frequency tuning 2000 Hz	212	-	217	83%	-	85%
			led control frequency tuning 2500 Hz	218	-	223	85%	-	87%
			led control frequency tuning 3000 Hz	224	-	229	88%	-	90%
			led control frequency tuning 3500 Hz	230	-	235	90%	-	92%
			led control frequency tuning 4000 Hz	236	-	241	93%	-	95%
			led control frequency tuning 4500 Hz	242	-	247	95%	-	97%
			led control frequency tuning 5000 Hz	248	-	255	97%	-	100%

11. Display panel functions

By suitably using all the functions of Diffusion DYNAMI,C which can be activated through its display panel, it is possible to change some of the parameters and to add some functions.

Changing the preset settings made by Colours LED can vary the functions of the projector so that it will respond differently to the controller; therefore carefully read about the functions described here before carrying out any possible selection.

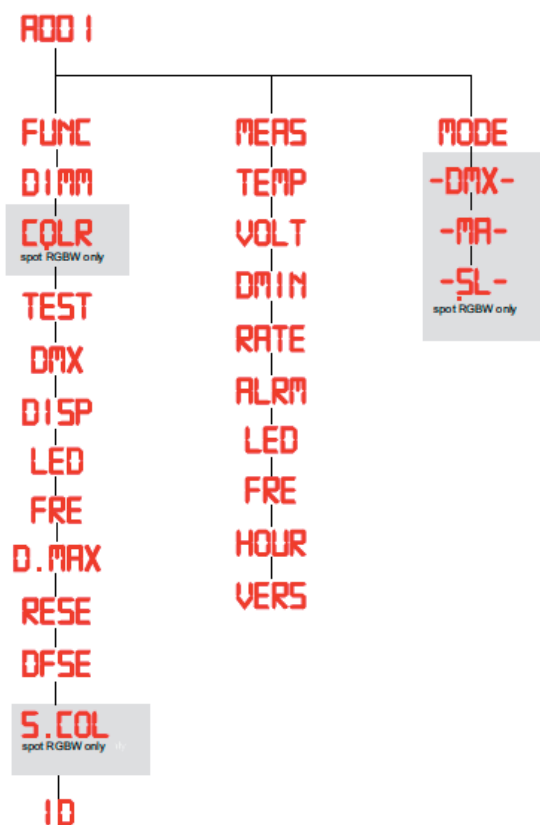
Quick guide to menu

In order to access the functions, just press the menu button: press the key + or – to scroll pages. To select the desired function, press enter key.

Rapid count

By the display panel of Diffusion Dynam.I t is possible to quickly change the various numbers displayed for the different functions in the following 3 manners:

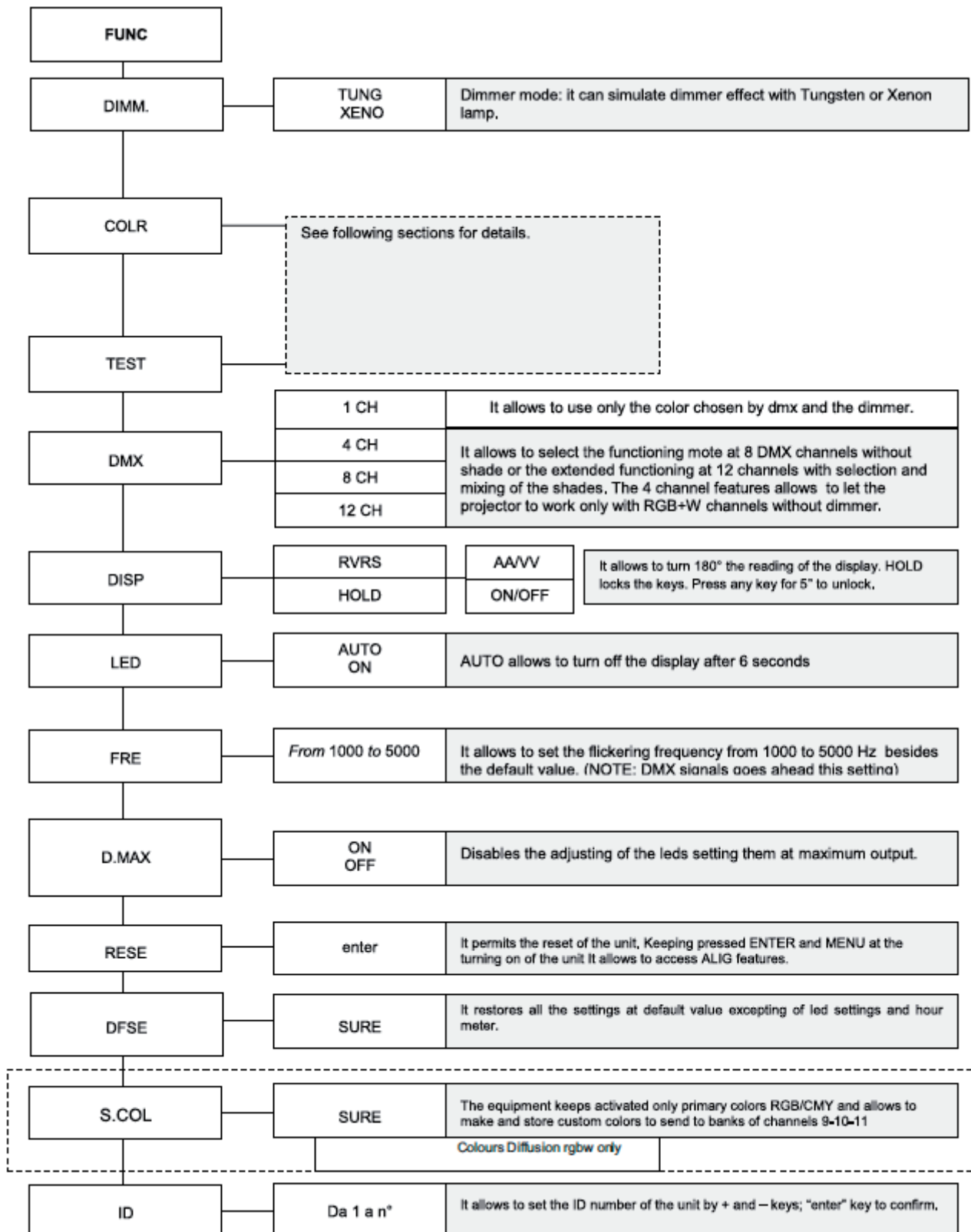
- 1.Pressing the + or – buttons will cause the count to be quicker.
- 2.Pressing first + and then – and then holding them down simultaneously will cause the numbers to jump to the highest value.
- 3.Pressing first – and then + and then holding them down simultaneously will cause the numbers to jump to the lowest value.



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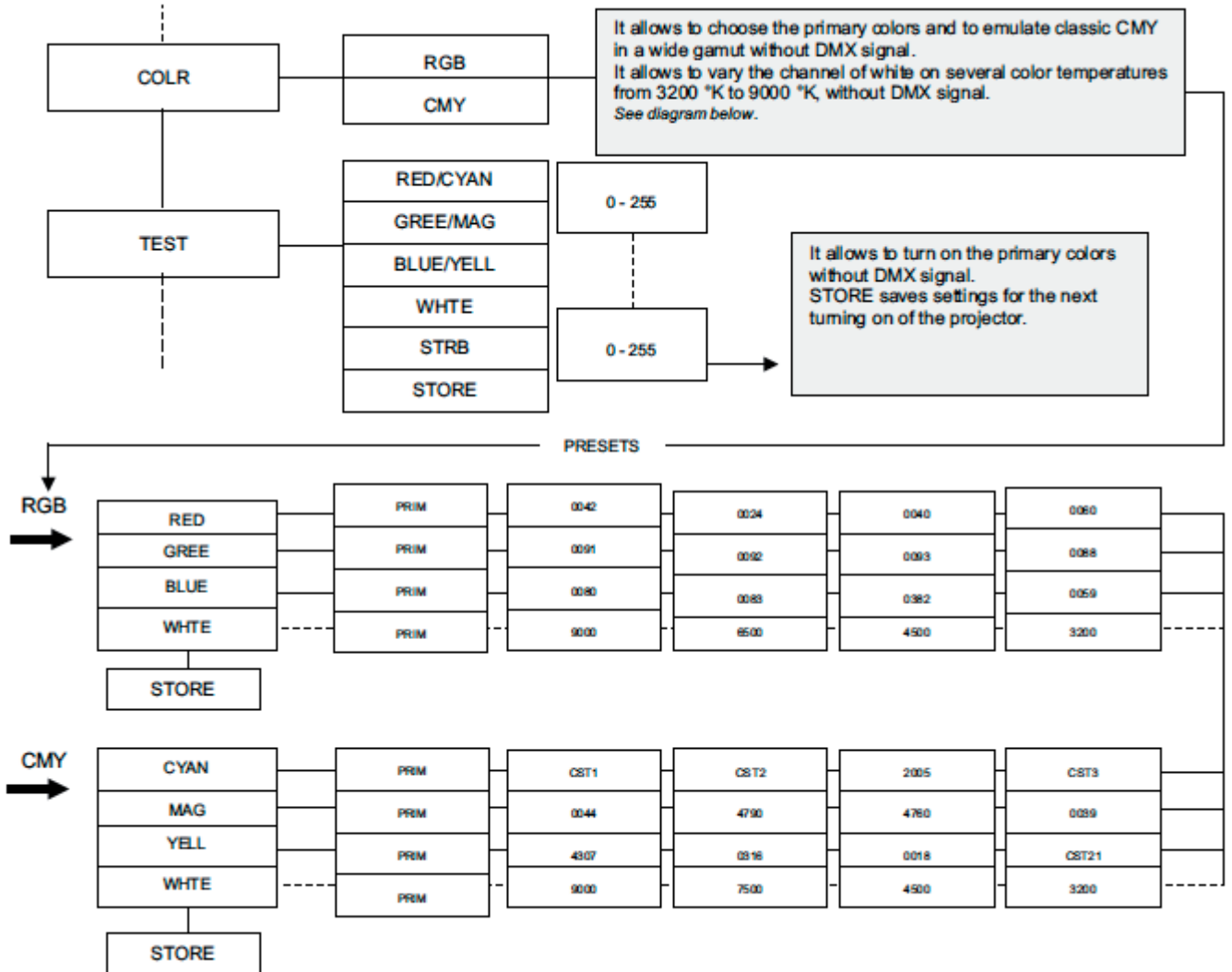
11. Main Menu function (FUNC)

The projector gives the opportunity to change and customize some functional settings.



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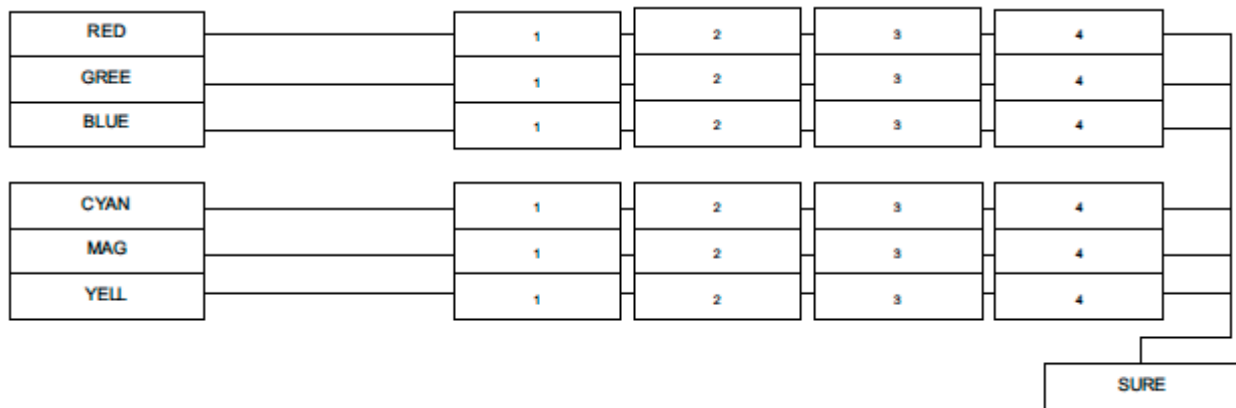
13. FUNCTION TEST COLORS



Customizing the color preset (S.COL function)

Colours Diffusion has one bank of 24 preset RGB and CMY "gel" fully customizable by the user in order to obtain a custom gel palette. To create and store each single custom color, create the favorite color by using DMX desk (RGB channels) then navigate the FUNC menu until the S.COL item appears. Press enter and by pressing "+", "-", "enter" buttons, choose the position in the memory bank of the unit according to the following diagram; when done, press "enter" and confirm by pressing "enter" one more time:

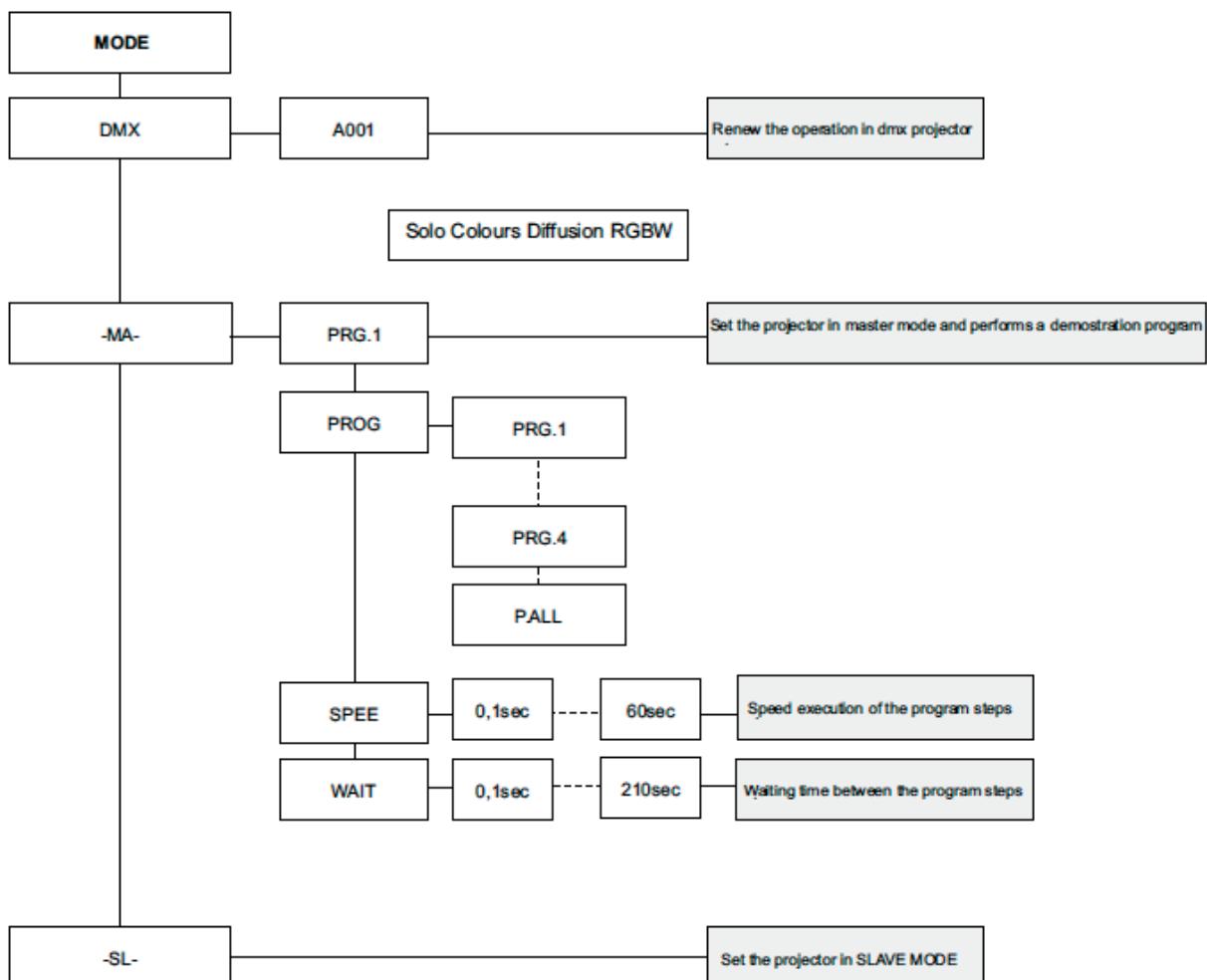
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The 24 gel presets bank is organized to allow you to arrange the custom gels in function of the primary color and/or the mixing method (RGB or CMY). For example, if you are going to store your “blue sky” blue obtained by RGB, it is recommendable to store it under RGB BLUE in one of the four available positions; if your next storing is a “ re red” obtained by CMY it should be stored in one of the four available positions under CMY MAG and so on. Once you have customized the bank you can check by scrolling the COLR menu that the new gels will be named with the numbers of the memory positions (1 to 4).

14. USED SETTINGS (MODE)

The projector offers the possibility to change some settings of the display panel.



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15. ERROR MESSAGES

If a malfunction occurs, Colours Diffusion has a self-diagnostic system that will show the error message on the display. The following table will explain in detail the most common errors. If, despite of suggested intervention, the problem persists, call the Arthea Service center near you.

Error message	Description and suggested solution.
DTER	DATA error The initial configuration data has failed, the projector has uploaded the default configuration: turn on the projector again and if the error persists, contact your Arthea service to control or replacement EEPROM
ADER	DMX Address Error The projector does not receive all channels of DMX needs to function properly. Check the DMX address indicated on the display and the number of channels generated by the mixer control. We recall in this connection that some controllers do not generate all the 512 channels
MAER	Input error to MASTER You tried to set the unit as MASTER when DMX signal is present or is already occupied by another Master online. Detach the DMX signal or remove MASTER existing

16. Manutenzione

Periodic cleaning

Lenses

Even a fine layer of dust can reduce the luminous output and alter the compactness of the beam. Regularly clean all filters and lenses using a soft cotton cloth, dampened with a specialist lens cleaning solution.

Cleaning of the unit

Use a soft brush or a common vacuum cleaner or a source of compressed air for removing dust. For the cleaning of the housing use a soft cloth and a non-aggressive cleaner. Check that the internal fans and heat exchanger must be perfectly clean.

Periodic controls

Check the correct working of the mechanical parts and, if needed, replace them. Make sure the projector is not mechanically damaged. If necessary, replace the worn parts.

Electrical components

Check all electrical connections, in particular for correct grounding and correct attachment of all extractable connectors. Press the connectors if necessary and reposition as before.

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17. QUESTIONS AND ANSWERS

The following list shows common issues that may be simply solved. If issues persist, the unit must be repaired by qualified personnel or just contact your Arthea service near you.

Question	Possible cause	Possible solution
Colours Diffusion does not light	Projector not powered	Check that the power cord is plugged in or test input voltage
Colours Diffusion not respond to DMX signal		Inspect the cable connection, correct poor connections or inefficient repair or replace cables damaged. Check the DMX address of the apparatus.

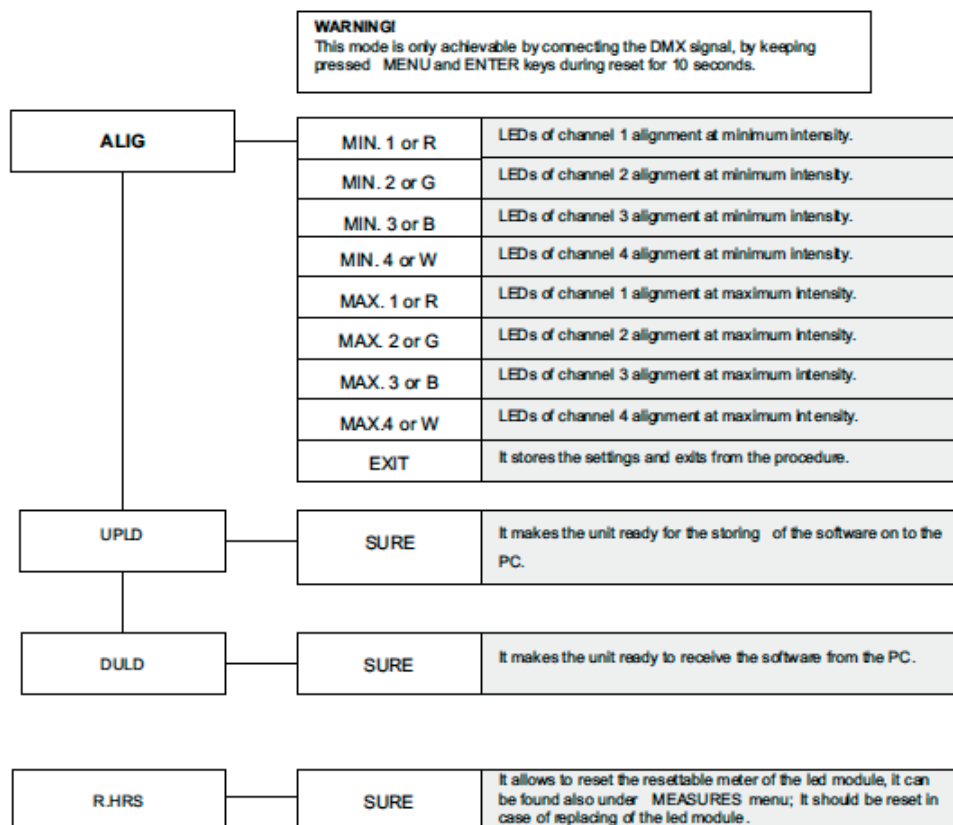
To access alignment function:

Activate the reset holding down the MENU and ENTER for at least 10 seconds while powering on. Screen is then displayed „ALIGN“.

WARNING !


The electronic alignment procedure is only possible with DMX512 signal .

See the following diagram to enter in the function's details.



Note: Simultaneously pressing + and – buttons will return the calibration value to 128 (default).

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Information on disposal of the equipment	
	The equipment at the end of its useful life must be disposed of at an appropriate recycling center for waste electrical and electronic equipment. The treatment and disposal of environmentally friendly, helps prevent potential negative environmental and health and promote the reuse and / or recycling of materials making up the equipment. Illegal disposal by the user includes the application of administrative sanctions provided by law.

Our equipment has been manufactured and assembled by the rules and the essential requirements of the RoHS directive, so the materials we use and electronic subassemblies that we receive from our suppliers have been checked and are produced in compliance with the Directive in question.

Reference	Title
2004/108/EC	Directive of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC (EMC)
2006/95/EC	Directive of the European Parliament and the Council of 12 December 2006 on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits (LVD)
2002/95/EC	Directive of the European Parliament and the Council of 27 January 2003 on the restriction of certain hazardous substances in electrical and electronic equipment (RoHS)
2002/96/EC & 2003/108/EC	Equipment Directive of the European Parliament and the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE)

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